

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Vogels et al.

Serial No.: To be assigned

Filed: February 20, 2004

For: MEANS AND METHODS FOR
FIBROBLAST-LIKE OR MACROPHAGE-
LIKE CELL TRANSDUCTION

Examiner (presumed): J. Qian

Group Art Unit (presumed): 1632

Attorney Docket No.: 2578-3982.3US

NOTICE OF EXPRESS MAILING

Express Mail Mailing Label Number: EV326919496US

Date of Deposit with USPS: February 20, 2004

Person making Deposit: Christopher Haughton

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In compliance with the duty to disclose information material to patentability pursuant to 37 C.F.R. § 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the documents listed on attached Form PTO-1449 or PTO/SB/08 be considered by the Examiner and made of record. Copies of the listed documents are enclosed pursuant to 37 C.F.R. § 1.98(a).

In accordance with 37 C.F.R. § 1.97(g) and (h), filing of this Information Disclosure Statement is not to be construed as a representation that a search has been made or an admission that the information cited herein is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b). Further, no representation is made by Applicants herein that no other possible material information as defined in 37 C.F.R. § 1.56(b) exists.

U.S. Patent Documents

<u>U.S. Patent No.</u>	<u>Publication Date</u>	<u>Patentee</u>
#US - 5,585,254	12-1996	Maxwell et al.
#US - 5,631,236	05-1997	Woo et al.
#US - 5,770,442	06-1998	Wickham et al.
#US - 5,861,290	01-1999	Goldsmith et al.
#US - 6,329,190	12-2001	Wickham et al.
#US - 6,455,314	09-2002	Wickham et al.

Foreign Patent Documents

<u>Document No.</u>	<u>Publication Date</u>	<u>Patentee</u>
#97/00326	01-03-1997	Introgene B.V.

Other Documents

- #BOUCHER et al., J. Clin. Invest., 1999 Feb, pp. 441-45, Vol. 103.
- #BOWIE et al., Science, 1990 Mar, pp. 1306-10, Vol. 247.
- #CRYSTAL et al., Transfer of Gene to Human: Early Lessons and Obstacles to Success, 1995, Science, Vol. 270, pp. 404-10.
- #DEONARAIN, Expert Opin. Ther. Pat., 1998, pp. 53-69, Vol. 8.
- #ECK et al., Gene-Based Therapy, 1996 Goodman & Gilman's, pp. 77-101.
- #GALL et al., Journal of Virology, 1996, pp. 2116-23, Vol. 70.
- #GUZMAN et al., PNAS, 1994, pp. 10732-36, Vol. 91.
- #KAYE et al., A single amino acid substitution results in a retinoblastoma protein defective in phosphorylation and oncoprotein binding, September 1990, Proc. Natl. Acad. Sci., pp. 6922-26, Vol. 87.
- #LAZAROVITS et al., J. Immunol., 1993, pp. 6482-89, Vol. 151.
- #LUSKY et al., Journal of Virology, 1998, pp. 2022-32, Vol. 72.
- #MAKRIDES et al., Protein Exp. Pur., 1999, pp. 183-202, Vol. 17.

- #MEI et al., Virol., 1998, pp. 254-66, Vol. 240.
- #MILLER et al., FASEB J., 1995, pp. 190-99, Vol. 9.
- #ROBBINS et al., Pharmacol. Ther., 1998, pp. 35-47, Vol. 80.
- #RUDINGER et al., Characteristics of the amino acids as components of a peptide hormone sequence, 1976, Peptide Hormones, pp. 1-7.
- #RUSSELL et al., Nat. Genet., 1998 Apr., pp. 325-30, Vol. 18.
- #SHANG et al., J. Immunol., 1998, pp. 467-74, Vol. 160.
- #STEVENSON et al., J. Virol., 1997, pp. 4782-90, Vol. 6.
- #SU, et al., A Genetically Modified Adenoviral Vector Exhibits Enhanced Gene Transfer of Human Smooth Muscle Cells, Journal of Vascular Research 2001, pp. 471-78, Vol. 38.
- #VERMA et al., Nature, 1997, pp. 239-42, Vol. 389.
- #WICKHAM et al., Increased In Vitro and In Vivo Gene Transfer by Adenovirus Vectors Containing Chimeric Fiber Protein, Nov. 1997, Journal of Virology, pp. 8221-29, Vol. 71, No. 11.
- #WICKHAM et al., Increased In Vitro and In Vivo Gene Transfer by Adenovirus Vectors Containing Chimeric Fiber Protein, Nov. 1997, Journal of Virology, pp. 8221-29, Vol. 71, No. 11.
- #ZINK et al., Gene Ther. Mol. Biol., 2001 Jan., pp. 1-24, Vol. 6.

#Pursuant to 37 C.F.R. § 1.98(d), copies of the previously identified patents are not being provided since they were previously cited by or submitted to the Office in the following prior application:
Serial No.: 09/517,898
Filed: March 3, 2000
For: MEANS AND METHODS FOR FIBROBLAST-LIKE OR MACROPHAGE-LIKE CELL TRANSDUCTION, which application is being relied upon for an earlier filing date under 35 U.S.C. § 120.

In compliance with the duty to disclose information material to patentability pursuant to 37 C.F.R. § 1.56, Applicants hereby identify the following listed copending applications naming a common inventor(s):

Attorney Docket No.: 2578-4075US
Serial No.: 09/332,803
Filing Date: 6/14/1999
Title: PACKAGING SYSTEMS FOR HUMAN RECOMBINANT
ADENOVIRUS TO BE USED IN GENE THERAPY

Attorney Docket No.: 2578-3982.3US

Attorney Docket No.: 2578-4123.2US
Serial No.: 09/348,354
Filing Date: 7/7/1999
Title: CHIMAERIC ADENOVIRUSES

Attorney Docket No.: 2578-4231US
Serial No.: 09/444,284
Filing Date: 11/19/1999
Title: GENE DELIVERY VECTORS PROVIDED WITH A TISSUE TROPISM FOR SMOOTH MUSCLE CELLS, AND/OR ENDOTHELIAL CELLS

Attorney Docket No.: 2578-3982.2US
Serial No.: 09/517,898
Filing Date: 3/3/2000
Title: MEANS AND METHODS FOR FIBROBLAST-LIKE OR MACROPHAGE-LIKE CELL TRANSDUCTION

Attorney Docket No.: 2578-4038.1US
Serial No.: 09/549,463
Filing Date: 4/14/2000
Title: RECOMBINANT PROTEIN PRODUCTION IN A HUMAN CELL

Attorney Docket No.: 2578-4070.1US
Serial No.: 09/573,740
Filing Date: 5/18/2000
Title: SEROTYPE OF ADENOVIRUS AND USES THEREOF

Attorney Docket No.: 2183-4497US
Serial No.: 09/621,593
Filing Date: 7/21/2000
Title: MEANS AND METHODS FOR RAISING ANTIBODY CONCENTRATION IN COMPARTMENTS OF THE BODY OF A NON-HUMAN ANIMAL

Attorney Docket No.: 2578-4192.1US
Serial No.: 09/657,492
Filing Date: 9/8/2000
Title: MODIFIED ADENOVIRAL VECTORS FOR USE IN GENE THERAPY

Attorney Docket No.: 2578-4489US
Serial No.: 09/665,472
Filing Date: 9/20/2000
Title: GENE DELIVERY VECTORS PROVIDED WITH A TISSUE
TROPISM FOR DENDRITIC CELLS

Attorney Docket No.: 2578-4626US
Serial No.: 09/722,867
Filing Date: 11/27/2000
Title: PRODUCTION OF VACCINES

Attorney Docket No.: 2578-4843US
Serial No.: 09/843,894
Filing Date: 4/27/2001
Title: AAV VECTOR PRODUCTION

Attorney Docket No.: 2578-3840.1US
Serial No.: 09/900,062
Filing Date: 7/6/2001
Title: PACKAGING SYSTEMS FOR HUMAN RECOMBINANT
ADENOVIRUS TO BE USED IN GENE THERAPY

Attorney Docket No.: 2578-3833.5US
Serial No.: 09/918,029
Filing Date: 7/30/2001
Title: PACKAGING SYSTEMS FOR HUMAN RECOMBINANT
ADENOVIRUS TO BE USED IN GENE THERAPY

Attorney Docket No.: 2578-4509.1US
Serial No.: 09/928,262
Filing Date: 8/10/2001
Title: GENE DELIVERY VECTORS WITH CELL TYPE
SPECIFICITY FOR PRIMARY HUMAN CHONDROCYTES

Attorney Docket No.: 2578-4123.1US
Serial No.: 09/953,280
Filing Date: 9/14/2001
Title: CHIMAERIC ADENOVIRUSES

Attorney Docket No.: 2578-5148US
Serial No.: 10/002,750
Filing Date: 11/15/2001
Title: COMPLEMENTING CELL LINES

Attorney Docket No.: 2578-5006.1US

Serial No.: 10/010,645

Filing Date: 11/13/2001

**Title: GENE DELIVERY VECTORS WITH CELL TYPE
SPECIFICITY FOR MESENCHYMAL STEM CELLS**

Attorney Docket No.: 2578-3833.6US

Serial No.: 10/038,271

Filing Date: 10/23/2001

**Title: PACKAGING SYSTEMS FOR HUMAN RECOMBINANT
ADENOVIRUS TO BE USED IN GENE THERAPY**

Attorney Docket No.: 2578-5226US

Serial No.: 10/040,949

Filing Date: 1/7/2002

**Title: INFECTION WITH CHIMAERIC ADENOVIRUSES OF CELLS
NEGATIVE FOR THE ADENOVIRUS SEROTYPE 5
COXSACKI ADENOVIRUS RECEPTOR (CAR)**

Attorney Docket No.: 2578-5233US

Serial No.: 10/042,770

Filing Date: 1/9/2002

**Title: GENE THERAPY FOR ENHANCING AND/OR INDUCING
ANGIOGENESIS**

Attorney Docket No.: 2578-3833.7US

Serial No.: 10/125,751

Filing Date: 4/18/2002

**Title: PACKAGING SYSTEMS FOR HUMAN RECOMBINANT
ADENOVIRUS TO BE USED IN GENE THERAPY**

Attorney Docket No.: 2578-3955.1US

Serial No.: 10/136,139

Filing Date: 5/1/2002

**Title: MEANS AND METHODS FOR NUCLEIC ACID DELIVERY
VEHICLE DESIGN AND NUCLEIC ACID TRANSFER**

Attorney Docket No.: 2578-4615.1US

Serial No.: 10/164,085

Filing Date: 6/4/2002

Title: COMPLEMENTING CELL LINES

Attorney Docket No.: 2578-3982.3US

Attorney Docket No.: 2578-4451.1US
Serial No.: 10/196,688
Filing Date: 7/15/2002
Title: ADENO-ASSOCIATED VIRUS AND ADENOVIRUS
CHIMERIC RECOMBINANT VIRUSES USEFUL FOR THE
INTEGRATION OF FOREIGN GENETIC INFORMATION
INTO CHROMOSOMAL DNA OF TARGET CELLS

Attorney Docket No.: 2578-3833.8US
Serial No.: 10/219,414
Filing Date: 8/15/2002
Title: STOCKS OF REPLICATION DEFICIENT ADENOVIRUS

Attorney Docket No.: 2578-5233.1US
Serial No.: 10/224,249
Filing Date: 8/19/2002
Title: GENE THERAPY FOR ENHANCING AND/OR INDUCING
ANGIOGENESIS

Attorney Docket No.: 2578-4215.1US
Serial No.: 10/231,735
Filing Date: 8/28/2002
Title: INTERLEUKIN-3 GENE THERAPY FOR CANCER

Attorney Docket No.: 2578-4038.2US
Serial No.: 10/234,007
Filing Date: 9/3/2002
Title: RECOMBINANT PROTEIN PRODUCTION IN A HUMAN
CELL

Attorney Docket No.: 2578-4080.1US
Serial No.: 10/235,175
Filing Date: 9/4/2002
Title: TARGETED DELIVERY THROUGH A CATIONIC AMINO
ACID TRANSPORTER

Attorney Docket No.: 2578-4615.2US
Serial No.: 10/272,041
Filing Date: 10/15/2002
Title: COMPLEMENTING CELL LINES

Attorney Docket No.: 2578-5592US
Serial No.: 10/305,435
Filing Date: 11/25/2002
Title: METHODS AND MEANS FOR ENHANCING SKIN
TRANSPLANTATION USING GENE DELIVERY VEHICLES
HAVING TROPISM FOR PRIMARY FIBROBLASTS, AS WELL
AS OTHER USES THEREOF (PRIMAIRE FIBROBLASTEN)

Attorney Docket No.: 2578-5832US
Serial No.: 10/381,088
Filing Date: 3/20/2003
Title: ADENOVIRAL VECTORS PROVIDED WITH A TROPISM FOR
DENDRITIC CELLS

Attorney Docket No.: 2578-5904US
Serial No.: 10/381,857
Filing Date: 8/13/2003
Title: ADENOVIRAL VECTORS FOR GENE DELIVERY IN
SKELETAL MUSCLE CELLS OR MYOBLASTS

Attorney Docket No.: 2578-3840.2US
Serial No.: 10/396,548
Filing Date: 3/25/2003
Title: PACKAGING SYSTEMS FOR HUMAN RECOMBINANT
ADENOVIRUS TO BE USED IN GENE THERAPY

Attorney Docket No.: 2578-3833.9US
Serial No.: 10/618,526
Filing Date: 7/11/2003
Title: PACKAGING SYSTEMS FOR HUMAN RECOMBINANT
ADENOVIRUS TO BE USED IN GENE THERAPY

Attorney Docket No.: 2578-6077US
Serial No.: 10/644,256
Filing Date: 8/20/2003
Title: EFFICIENT PRODUCTION OF IgA IN RECOMBINANT
MAMMALIAN CELLS

Attorney Docket No.: 2578-4489.1US
Serial No.: 10/646,449
Filing Date: 8/22/2003
Title: GENE DELIVERY VECTORS PROVIDED WITH A TISSUE
TROPISM FOR DENDRITIC CELLS AND METHODS OF USE

Attorney Docket No.: 2578-3982.3US

Attorney Docket No.: 2578-6158US
Serial No.: 10/698,086
Filing Date: 10/30/2003
Title: METHODS FOR THE IDENTIFICATION OF ANTIVIRAL
COMPOUNDS

This Information Disclosure Statement is filed within three (3) months of the filing date of the above-identified application, and no certification pursuant to 37 C.F.R. § 1.97(c) or a fee pursuant to 37 C.F.R. § 1.17(p) is required.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Allen C. Turner', with a long horizontal stroke extending to the right.

Allen C. Turner
Registration No. 33,041
Attorney for Applicant(s)
TRASKBRITT, P.C.
P.O. Box 2550
Salt Lake City, Utah 84110-2550
Telephone: 801-532-1922

Date: February 19, 2004
ACT/bv

Enclosures: Form PTO-1449 or PTO/SB/08
Cited Documents

Document in ProLaw

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet	1	of	3
-------	---	----	---

Complete if Known

Application Number	To be assigned
Filing Date	February 9, 2004
First Named Inventor	Vogels et al.
Group Art Unit	(presumed) 1632
Examiner Name	(presumed) J. Qian
Attorney Docket Number	2578-3982.3US

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	To be assigned
				Filing Date	February 9, 2004
				First Named Inventor	Vogels et al.
				Group Art Unit	(presumed) 1632
				Examiner Name	(presumed) J. Qian
Sheet	2	of	3	Attorney Docket Number	2578-3982.3US

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		#BOUCHER et al., J. Clin. Invest., 1999 Feb, pp. 441-45, Vol. 103.	
		#BOWIE et al., Science, 1990 Mar, pp. 1306-10, Vol. 247.	
		#CRYSTAL et al., Transfer of Gene to Human: Early Lessons and Obstacles to Success, 1995, Science, Vol. 270, pp. 404-10.	
		#DEONARAIN, Expert Opin. Ther. Pat., 1998, pp. 53-69, Vol. 8.	
		#ECK et al., Gene-Based Therapy, 1996 Goodman & Gilman's, pp. 77-101.	
		#GALL et al., Journal of Virology, 1996, pp. 2116-23, Vol. 70.	
		#GUZMAN et al., PNAS, 1994, pp. 10732-36, Vol. 91.	
		#KAYE et al., A single amino acid substitution results in a retinoblastoma protein defective in phosphorylation and oncoprotein binding, September 1990, Proc. Natl. Acad. Sci., pp. 6922-26, Vol. 87.	
		#LAZAROVITS et al., J. Immunol., 1993, pp. 6482-89, Vol. 151.	
		#LUSKY et al., Journal of Virology, 1998, pp. 2022-32, Vol. 72.	
		#MAKRIDES et al., Protein Exp. Pur., 1999, pp. 183-202, Vol. 17.	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	To be assigned
				Filing Date	February 9, 2004
				First Named Inventor	Vogels et al.
				Group Art Unit	(presumed) 1632
				Examiner Name	(presumed) J. Qian
Sheet	3	of	3	Attorney Docket Number	2578-3982.3US

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		#MEI et al., Virol., 1998, pp. 254-66, Vol. 240.	
		#MILLER et al., FASEB J., 1995, pp. 190-99, Vol. 9.	
		#ROBBINS et al., Pharmacol. Ther., 1998, pp. 35-47, Vol. 80.	
		#RUDINGER et al., Characteristics of the amino acids as components of a peptide hormone sequence, 1976, Peptide Hormones, pp. 1-7.	
		#RUSSELL et al., Nat. Genet., 1998 Apr., pp. 325-30, Vol. 18.	
		#SHANG et al., J. Immunol., 1998, pp. 467-74, Vol. 160.	
		#STEVENSON et al., J. Virol., 1997, pp. 4782-90, Vol. 6.	
		#SU, et al., A Genetically Modified Adenoviral Vector Exhibits Enhanced Gene Transfer of Human Smooth Muscle Cells, Journal of Vascular Research 2001, pp. 471-78, Vol. 38.	
		#VERMA et al., Nature, 1997, pp. 239-42, Vol. 389.	
		#WICKHAM et al., Increased In Vitro and In Vivo Gene Transfer by Adenovirus Vectors Containing Chimeric Fiber Protein, Nov. 1997, Journal of Virology, pp. 8221-29, Vol. 71, No. 11.	
		#WICKHAM et al., Increased In Vitro and In Vivo Gene Transfer by Adenovirus Vectors Containing Chimeric Fiber Protein, Nov. 1997, Journal of Virology, pp. 8221-29, Vol. 71, No. 11.	
		#ZINK et al., Gene Ther. Mol. Biol., 2001 Jan., pp. 1-24, Vol. 6.	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

#Pursuant to 37 C.F.R. § 1.98(d), copies of the previously identified patents are not being provided since they were previously cited by or submitted to the Office in the following prior application:

Serial No.: 09/517,898

Filed: March 3, 2000

For: MEANS AND METHODS FOR FIBROBLAST-LIKE OR MACROPHAGE-LIKE CELL TRANSDUCTION, which application is being relied upon for an earlier filing date under 35 U.S.C. § 120.

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.